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ABSTRACT

Major emphasis has been placed on preparing students for college. Studies indicate that most of the job openings available between now and 1980 will not require a college education; however, a large number of them will require specialized training. Programs need to be initiated or expanded for occupations promising substantial demand and program areas with declining demand and large enrollments need to be curtailed or perhaps eliminated. Since emerging economic trends have their roots in the past, an historical perspective is required to assess the labor force status of the three major ethnic groups in Texas (Hexican Americans, blacks, and Anglos). Each student's aptitudes and interests must also match the training undertaken. This report examines: (1) the occupational education programs available to students in grades 9-12 in 11 Texas public school districts; (2) vocational education enrollment patterns for the State as a whole and for these school districts; (3) vocational enrollment patterns in comparison to the State's manpower requirements; (4) the economy in terms of industry structure and occupational composition; (5) expected changes in the industrial structure and their effect on occupational demand: and (6) implications of the occupational demand trends in terms of current patterns and emerging trends in high school occupational education. The appendixes consist of tabular data by ethnic group for vocational enrollment (State and district) and occupational employment (State and city). (NQ)

MANPOWER AND VOCATIONAL EDUCATION IN TEXAS

Submitted to

The Division of Occupational Research and Development

of the

Texas Education Agency

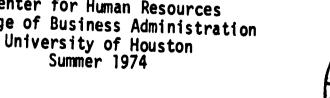
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by

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PREFACE

The University of Houston, Center for Human Resources, under contract to the Texas Education Agency, Division of Occupational Research and Development, has been involved in examining the educational and training opportunities available to young people throughout the State of Texas. An important aspect of this evaluation involves the relationship between the vocational programs offered in secondary schools and state manpower requirements.

This report, <u>Manpower and Vocational Education in Texas</u>, describes the Texas labor market and examines the broad field of vocational education offerings in Texas secondary schools. It also details statewide enroll. t patterns by sex and ethnic group and discusses the implications of such atterns.

Other reports in this series include <u>Black Youth and Occupational Education in Texas</u>: <u>An Ethnic Comparison</u>; and <u>A Demographic Profile of Texas and Selected Cities</u>: <u>Some Recent Trends</u>. A final publication, <u>Occupational Education in Texas</u>: <u>Summary and Conclusions</u>, synthesizes the four project reports and discusses the implications of the findings. A previous report also published by the Center for Human Resources -- <u>Mexican American Youth and Yocational Education in Texas</u> (1973)-- focused on similar problems encountered by Mexican Americans. That study, as well as the present ones, have been submitted to state and local educators, legislators, and others concerned with the education and training of young people.



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I. INTRODUCTION

In the past, educators and parents have placed major emphasis upon preparing students for college. Nationwide almost half of all high school graduates are entering college, yet studies indicate that most of the job openings available between now and 1980 will not require a college education. Although the vast majority of jobs available in the near future will not require a four year college degree, a large number of them will require specialized training.

Educators and the public alike have come to realize that a college education is not an automatic passport to a secure, high paying job. In recent years, a large number of college graduates have had difficulty in obtaining jobs in areas for which they were trained. The recent and well publicized overabundance of primary and secondary school teachers is only the most dramatic example of an all too common dilemma faced by college graduates in recent years. As the power of the college degree to guarantee economic security wanes, many educators are re-examining the priorities governing the type and amount of occupational education available to students. Since trained specialist in numerous occupations earn as much or more than the average college graduate, the educational system resulting from such an appraisal could be expected to place more emphasis on vocational education as a means of providing students with specific, marketable job skills. Conversely, a four year college degree would no longer be viewed as a universally desirable goal for all students.

Such a reappraisal cannot be conducted without careful study of national, state, and local labor force trends. If the educational system is to be restructured to more adequately prepare students to enter the world of work,



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occupational trends must be identified and compared to current offerings of occupational education. Ideally, teachers and counselors should acquaint themselves with patterns of occupational demand so that they may provide students with the information necessary to select careers with substantial economic potential. This would mean that programs would have to be initiated or expanded for occupations promising substantial demand. Concurrently, program areas with declining demand and large enrollments would need to be curtailed or perhaps eliminated. Also, students cannot be channeled in a particular type of occupational training program arbitrarily. Not only must the training available match occupational trends, but the aptitudes and interests of the student must match the training undertaken. Admittedly, the task described above is a difficult one involving trade-offs between the skills demanded in the labor market and the aptitudes and interests of students. But the task is one which must be accomplished with a reasonable degree of effectiveness if substantial unemployment, underemployment, and a consequent waste of human resources is to be avoided.

This report attempts to make a contribution to the continuing process of reappraisal outlined above. Specifically, this report examines the occupational education programs available to students in grades 9-12 in public schools in Texas. The report examines vocational education enrollment patterns for the State as a whole and for the 11 school districts involved in this survey. Vocational enrollment patterns are compared to the manpower requirements of the State's economy. Estimates of the State's manpower requirements are derived by examining the economy in terms of industry structure and occupational composition. Expected changes in the industrial structure are explored in terms of their effect on occupational demand. Implications of the trends in



occupational demand are considered in terms of the current patterns and emerging trends in high school occupational education. Such an analysis makes it possible to identify programs which need to be given the greatest priority for expansion and also to identify programs in the educational system which may be overcommitted.

Section III of this report explores statewide manpower requirements while Section III describes secondary vocational education program composition in Texas. Section IV analyzes the relationship between the two. A final section contains a summary of this report. Appendix A includes tables describing vocational enrollment by sex and ethnic group for the State and each school district surveyed in this study. Appendix B contains occupational employment by ethnic group for the State and for each city surveyed.



II. STATEWIDE MANPOWER REQUIREMENTS

Overview of the Texas Economy

Texas has a population in excess of 11,000,000. Over 2,000,000 (approximately 18 percent) of the State's residents are Mexican American, and another 1,400,000 (12.7 percent) are Black. Although all major cities in the State have substantial minority populations, certain rural and semi-rural counties in South Texas and East Texas have particularly large concentrations of minority residents. In 33 counties located in South Texas and along the United States-Mexico border, Mexican Americans comprise more than 40 percent of the population. In another 26 counties located primarily in East Texas, Blacks comprise more than 25 percent of the population. Both the existence of large minority populations and their historical roles in the labor force impact the State's economy.

Since emerging economic trends have their roots in the past, an historical perspective is required to assess the labor force status of the three major ethnic groups in the State. A knowledge of historical trends influencing the makeup, growth, and development c' the national labor force is required to understand the emerging structure of the Texas labor force. Along with the entire South, Texas has been slower to industrialize than the nation as a whole. Consequently, a relatively large proportion of the State's labor force has been employed in agriculture. An examination of Table 1 reveals the degree to which the structure of the Texas economy differs from that of the nation as a whole. Note that the employment in agriculture declined steadily between



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1940 and 1970 both for Texas and the United States. This decline in agricultural employment reflects gains in agricultural productivity resulting from

Relative Importance of Manufacturing and Agricultural Employment for Texas and the United States, 1940 to 1970

		Percent of To	tal Employment	
Region and Industry	1970	1960	1950	1940
Texas				
Manufacturing	17.4	16.2	13.5	10.0
Agricul ture	4.4	8.8	16.0	30.3
United States				
Manufacturing	24.4	27.1	25.9	23.4
Agriculture	3.5	6.7	12.2	18.5

SOURCE: U. S. Bureau of the Census, Census of the Population: 1940, 1950, 1960, and 1970.

increasing mechanization and the consolidation of the smaller farms into larger economic units which can be managed more efficiently. An examination of the national and State trends in manufacturing employment is also quite revealing. For the United States as a whole, manufacturing employment as a percent of total employment has steadily declined since 1950. This decline is attributable to the increasing proportion of the labor force employed in the service producing industries, which since the beginning of the 1950s have employed a majority of the country's workers. The historical lack of industrialization in Texas becomes apparent when one examines the percentage of workers employed in manufacturing industries. A substantially smaller percentage of workers in Texa, are employed in manufacturing than in the nation as a whole. However, the percentage of workers employed in manufacturing industries in Texas is



increasing while the percentage of employment in this industry nationally is declining. These trends suggest that the industrial structure of the Texas economy is evolving toward that of the national economy.

Patterns of Growth and Povertu

The rapid growth of the manufacturing industries in the State has created a number of economic ironies. When measures of economic activity are examined at the State level or when the economies of major metropolitan areas of the State are examined, a profile of economic health and dynamic growth emerges; yet poverty remains a major problem for a number of areas in the State. The Texas labor force is the fifth largest in the nation and one of the three fastest growing in the nation. Both the population and labor force of Texas are expected to grow at rates exceeding the national average through 1980. Several of the State's metropolitan areas are expanding rapidly, attracting population from outside the State as well as from small towns and rural areas within the State. While much of the rest of the nation is wrestling with a recession, or at least a serious economic slowdown, several major cities within the State—Houston, Dallas, and Fort Worth, in particular—have been characterized by growing populations, expanding job markets and relatively low unemployment rates.

In contrast to the economic vitality of the State's major metropolitan areas, other areas have experienced little economic growth, have high rates of unemployment, and have large percentages of the populations living in poverty. Perhaps a brief economic overview of the counties not experiencing growth would highlight the differences between the affluent and impoverished areas of the State. Poverty is defined by the Federal government in terms of both family



Houston Chronicle, January 5, 1973, p. 3.

size and income. In 1970, poverty was defined as an annual income of less than \$3,715 for a nonfarm family of four. A farm family of four with an income of less than \$3,158 per year was classified as poor. The incidence of poverty is defined as the percentage of the population living in families with incomes below the official poverty level. The incidence of poverty is perhaps one of the best indices of the economic well-being of an area.

In May, 1974, the Texas Office of Economic Opportunity published a study titled Poverty in Texas, 1973. According to this report, Texas ranks 12th among all the states in the incidence of poverty. Statewide, the incidence of poverty was 19 percent in 1970. This compares to 13.7 percent for the United States in 1970. Approximately 2,000,000 Texans live in families which have incomes below the official poverty level. This means that Texas ranks second only to California in the number of poor residents. Although there are poor within all ethnic groups in the State, poverty is most prevalent among Blacks and Mexican Americans. The incidence of poverty is highest among Blacks--39 percent. Approximately 36 percent of all Mexican Americans live in families which have incomes below the poverty level. By contrast, the incidence of poverty for Anglos is ten percent. In other words, one of every ten Anglos lives below the poverty level, while approximately four of every ten Black and Mexican American residents live below the official poverty level. 2 When the incidence of poverty is examined at the county level, an even clearer profile of poverty amidst affluence emerges. Texas has 26 counties where the incidence of poverty is 40 percent or more. Of these 26 counties, 24 are classified as counties with a large percentage of minority residents. In

³The Texas Office of Economic Opportunity classifies a county as having a large percentage of minority residents if more than 40 percent of the residents are Mexican American or more than 25 percent of the residents are Black.



²Texas Office of Economic Opportunity, <u>Poverty in Texas</u>, <u>1973</u>, (Austin, Texas: Department of Community Affairs, 1974).

addition, 54 other counties have an incidence of poverty of 30 percent or more, and 17 of these 54 counties have 25 percent or more minority residents.

The incidence of poverty is related to both broad economic trends and the historical patterns of racial discrimination and educational neglect. Table 2 presents data on the incidence of poverty for urban and rural residents of the State. The declining importance of agriculture as a source of employment is

Incidence of Poverty in Texas
by Urban and Rural Residence, by Ethnic Group

	-	Perce	nt Poor	
Residence	Black	Mexican American	Anglo	All Ethnic Groups
Urban	35.8	32.9	8.8	17.1
Rural	53.5	50.0	16.1	24.5
TOTAL	38.6	35.5	10.4	18.6

SOURCE: Texas Office of Economic Opportunity, <u>Poverty in Texas</u>, <u>1973</u>, (Austin, Texas: Department of Community Affairs, 1974).

reflected in the high incidence of poverty in rural areas. The mechanization of agriculture means that fewer agricultural workers are needed to produce farm crops. Consequently, individuals living in rural areas have relatively fewer opportunities for employment than in the past. Almost all of the counties with a high incidence of poverty have lost population as workers migrate to other areas in search of employment. Rural counties no longer provide sufficient agricultural employment to fully engage members of the local labor force, and other industries have not grown sufficiently to absorb the excess workers. The problem has been somewhat alleviated by the out-migration of those seeking employment elsewhere, but little has been done to offer employment



to or otherwise alleviate the poverty of those stranded in the stagnant economies of some of the rural counties of Texas.

Poverty is severe and persistent in Texas, and it is a problem which affects minority residents to a much greater extent than their Anglo counterparts. Clearly, serious economic problems are masked beneath aggregate measures of economic well-being.

Industry Trends

Statewide industrial employment patterns are analyzed below because they are one measure of the State's manpower requirements which should be considered in planning occupational education programs. Industrial trends are derived from data collected by the Texas Employment Commission. The Texas Employment Commission is the only source of annual estimates of employment by industry.

Table 3 shows that total employment in the State of Texas increased by almost 500,000 between 1970 and 1973, an increase of almost 11 percent.

Almost every sector has experienced substantial growth in employment during the past three years. The fastest growing sector during the three-year period was finance, insurance, and real estate. Employment in this area increased by 20 percent for the three-year period. Contract construction also experienced substantial growth, adding over 100,000 workers between 1970 and 1973. It should be noted that both of these areas are part of the services group. While manufacturing employment increased substantially, the rate of growth in employment was not as rapid as during the 1960s. However, manufacturing employment is increasing at a rate which still exceeds the national average.

Several industries posted rather modest gains, and two industries reported losses in the total number of workers employed. Transportation, communications and public utilities reported only a slight increase in total employment.



Employment in this industry increased by only 2,200 workers—the smallest gain of any industry with a net increase in employment. With a net change in employment of less than one percent of its work force, employment in transportation, communications and public utilities can be considered stable. Mining employment was virtually stable, with a statistically insignificant decline

TABLE 3
Employment by Industry for Texas
1970 and 1973

		Average yment		
Sector	1970	1973	Change	Percent
Total Labor Force	4,753,100	5,241,450	488,350	10.3
Unemployment	167,800	158,300	-9,500	-5.7
Unemployment Rate	3.5%	3.0%	-	•
Total Employment	4,585,300	5,083,150	497,650	10.9
Agricul ture	294,700	280,250	-14,450	-4.9
Proprietors, Unpaid Family Workers, Domestics, Etc.	583,500	593,700	10,200	1.7
Manufacturing	731,500	772,800	41,300	5.6
Mining	103,600	103,100	-500	-0.5
Contract Construction	238,500	267,650	29,150	12.2
Transportation, Communications and Public Utilities	267,300	269,500	2,200	0.8
Trade	891,850	999,000	107,150	12.0
Finance, Insurance and Real Estate	194,100	233,000	38,900	20.0
Services	614,750	676,800	62,050	10.1
Government	665,500	729,150	63,650	9.6

SOURCE: Manpower Trends, (Austin, Texas: Texas Employment Commission, 1970-1973).

of approximately 500 workers. In Texas, almost all of the mining employment is associated with petroleum exploration and production. The higher crude

oil prices resulting from the energy crisis may stimulate exploration activities in Texas. Increased exploration activities would, of course, increase the employment, but a major boom in the industry would be required to generate a significant number of new jobs.

Agriculture lost a substantial number of workers between 1970 and 1973. There were over 14,000 fewer jobs in agriculture in 1973 than there were in 1970. As noted previously, this decline in employment, which represents approximately five percent of the agricultural work force, can be attributed to changes in technology and economies of scale realized from the consolidation of small farms. This decline was expected and in no way represents a deviation from long-term economic trends. The total number of workers in agriculture is expected to decline annually for the remainder of the decade.

The general prognosis for continued economic growth in Texas is quite favorable. The aggregate economy is expanding at a rapid rate, and it appears that manufacturing is becoming an increasingly important component of the economy. The State is also following the national trend of rapid expansion in the service producing industries. Both of these trends increase the need for white-collar workers and skilled blue-collar workers. Conversely, the demand for semiskilled and unskilled workers will continue to decline. It should be clear that these broad general trends operating in the economy have implications for occupational education.

Trends in Occupational Employment

The differential rates of industrial growth cause changes in the occupational composition of the State's labor force. It is the shift in occupational composition which is important for planning occupational education. Data concerning the occupational composition of the labor force are much more



Employment Commission collects monthly data on employment by industry for the State and all major labor markets within the State, comprehensive occupational data are generally available only once every ten years when the census is taken. It is possible to project occupational employment utilizing methodology developed by the Bureau of Labor Statistics. Such projections have been made for Texas through 1975, and efforts are currently underway to incorporate this methodology in a supply-demand information system, but such a system is not currently available. For this report the 1970 census will be utilized to depict the occupational structure of the labor force. Tables detailing employment by occupation for the labor markets of survey cities are included in Appendix B.

There are several ways in which the occupational structure of the labor force can be examined. This study will examine both the absolute size of the labor force and ethnic composition of major occupational categories. Charts 1 and 2 compare the occupational employment patterns of each of the three major ethnic groups. The charts are based on data taken from the 1970 Census of Texas. At that time the Census Bureau reported that 4,141,529 persons were employed in the State of Texas. Of these, 475,660 (11.5 percent) were Black; 600,425 (14.5 percent) were Mexican American; and 3,065,444 (74.0 percent) were Anglo. While the two charts presented here are based on 1970 data, there is little reason to suspect that there have been dramatic changes in the occupational composition during the last three years.

Chart 1 indicates that almost 50 percent of the labor force is employed in white-collar occupations. The proportion of workers employed in white-collar occupations has grown since 1960, a trend corresponding to national

⁴See Appendix B for the actual number of individuals employed in each occupation by ethnic group.



Occupational Composition of the Work Force by Ethnic Group for Texas, 1970

	Total Work			Marilana Amandaan
Percent	Force (All Ethnic Groups)	Anglo Work Force	Black Work Force	Mexican American Work Force
			Professional 7.2%	
5			Managers 2.1%	Professional 7.6%
10			Sales Workers 1.9%	Managers 5.0%
15	Professional		Clerical 8.8%	Sales Workers
20	14.4% . Managers 8.9%	Professional		5.7% Clerical 13.7%
25	Sales Workers	16.8% Managers 10.7%		
30	7.8% Clerical 17.4%	Sales Workers		
35	oren teur zavan	9.1% Clerical 19.5%		
40		Cierical 13.5%		
45			Craftsmen, Fore-	
50		·	men and Kindred Workers 8.8%	Craftsmen, Fore- men and Kindred
55	Craftsmen, Fore-		Operative Workers 21.2%	Workers 15.0%
60	men and Kindred Workers 14.3%	Craftsmen, Fore- men and Kindred	Laborers 11.3%	Operative Workers 21.6%
65	Operative Workers 15.1%	Workers 15.0%	Farmers and Farm	Laborers 8.7%
70	Laborers 4.9%	Operative Workers 12.3%	Laborers 2.7% / Service Workers	Farmers and Farm Laborers 6.5%
75	Farmers and Farm Laborers 4.0%	Laborers 3.1% /	23.8% Private House-	Service Workers
80	Service Workers	Laborers 3.7%	hold Workers	Private House-/
85	Private House-	Service Workers		2.5%
90	hold Workers	Private House-		
95		0.8%		
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patterns. In addition, the proportion of semiskilled and unskilled in the labor force has declined. This, too, corresponds to the national pattern and is a trend which is expected to continue. It is important to note that substantially more than half of all Anglo workers are employed in white-collar occupations. Anglo workers also constitute a larger percentage of the craftsmen, foremen and kindred occupations than their proportion in the labor force. The significance of these patterns becomes clear when the occupations of Black and Mexican American workers are compared to those of Anglo workers. While approximately 57 percent of all Anglo workers are employed in the traditional white-collar occupations, only 20 percent of all Black and 32 percent of all Mexican American workers are employed in such occupations. While many of the traditional white-collar jobs pay less than some of the more skilled, specialized blue-collar jobs, in general, white-collar jobs pay more than blue-collar jobs. Thus, there is a tendency for minority workers to be employed in the lower paying occupational categories.

Black workers, in particular, tend to be concentrated in the lower paying occupational categories. The broad occupational category with the highest median income is that of professional, technical and kindred occupations. Black workers have had very little success in penetrating these occupations. While 16.8 percent of all Anglo workers are employed in this category, only 7.2 percent of all Black workers are employed as professional, technical or kindred workers. Blacks have been even less successful at obtaining managerial positions. Almost 11 percent of all Anglos are employed as managers, but only 2.1 percent of all Black workers hold anagerial positions. Thus, the Anglo worker is five times as likely as his Black counterpart to be employed as a manager. A similar pattern exists with regard to sales and



clerical occupations. While the tendency for Black workers to be more or less excluded from higher paying job categories is most evident when comparisons are made between white-collar and blue-collar occupations, the same pattern is evident within the blue-collar occupations as well. The higher paying blue-collar jobs are generally included within the craftsmen and foremen categories. Black workers are much less likely to be employed in these occupations than either Anglo or Mexican American workers. While 15 percent of all Anglo workers are employed as craftsmen or foremen, less than nine percent of all Black workers hold such positions. Thus, even within the blue-collar occupations, Blacks tend to be excluded from the higher paying positions. The fact that Black workers are underrepresented in the higher paying occupations automatically means that they are overrepresented in the lower paying job categories. Perhaps the most telling fact of all is that over 12 percent of all Black workers are employed as private household workers.

Mexican American workers fare somewhat better than Black workers in obtaining higher paying jobs. Mexican American workers have experienced considerably more success in penetrating white-collar occupations than their Black counterparts. Although the degree of penetration into the highest paying of the white-collar jobs--professional, technical and kindred occupations-was approximately the same for both Black and Mexican American workers, Mexican American workers have been substantially more successful than their Black counterparts in penetrating the managerial, sales, and clerical occupations. However, the Anglo worker is still far more likely than either Black or Mexican American workers to hold white-collar positions. Anglo workers are twice as likely as Mexican American workers to hold managerial positions. Mexican American workers fare somewhat better in sales and clerical occupations, but they are still underrepresented.



A very interesting pattern of occupational employment exists within the blue-collar occupations. Mexican American workers are just as likely to be craftsmen or foremen as their Anglo counterparts. In this respect, the Mexican American worker fares much better than his Black counterpart. Another occupation in which there is a substantial difference in the employment patterns of Black and Mexican American workers is the private household worker occupation. While over 12 percent of all Black workers are employed as domestics or other private household workers, less than three percent of all Mexican American workers hold such positions. Even though both Black and Mexican American workers are at a disadvantage when competing with Anglo workers for higher paying jobs, it appears that there are systematic differences between the labor market experiences of Black and Mexican American workers.

Certain occupational patterns are more apparent if one examines the ethnic composition of employment within a given occupation. Chart 2 presents the ethnic composition of employment in broad occupational groups. Although Chart 2 shows essentially the same trends as Chart 1, differences in employment patterns between Black and Mexican American workers are somewhat more clear in some occupations. Approximately 74 percent of the total labor force is comprised of Anglo workers. Black and Mexican American workers account for 11.5 percent and 14.5 percent of the labor force, respectively. If there were no differences in occupational employment patterns among the three major ethnic groups, one would expect to find these proportions of ethnic employment within each major occupational category.

Of course, the degree of labor force participation for each ethnic group is not constant across occupational categories. Some occupations are



Ethnic Composition of Occupational Employment for the State of Texas, 1970

	0	10	20	30	P e 1	r c e 50	n t	70	80	90	100
Total Work Force			•		<u>'</u>			74.0	11.5		
Professional, Technical and Kindred Workers									86.	6 5.7/7	7
Managers and Administrators									8	9.1	3.2
Sales Workers									86.	6 10	5.5
Clerical and Kindred Workers									82.8	-π: 1	.4
Craftsmen, Foremen and Kindred Workers								77.	6 7.	15	.3
Operative Workers							63.3	16.	N	20.6	
Laborers, except Farm and Mine					47.	3	26.7			7.9/	
Farmers and Farm Managers										92.4	53
Farm Laborers and Foremen					43.5	113.3			43.2		
Service Workers						57.	3	24.7	2	18.0	
Private Household Workers		2	20.2			63.	. 5			16.	
									1		
Legend											
Anglo		Blac	k		Mex	ican d	Ameri	can			

primarily the domain of Anglo workers, while other occupations are dominated by Black or Mexican American workers. As noted previously, Anglo workers have a disproportionate share of the white-collar jobs. Chart 2 makes this pattern particularly clear by clarifying the employment patterns in agriculture occupations which were obscured in Chart 1 because these occupations account for a relatively small proportion of total employment. Farm management and farm ownership is largely an activity of the Anglo worker, but farm labor is largely an activity of the minority worker. While minority workers comprise less than ten percent of all farmers and farm managers, they account for more than 55 percent of all farm laborers and farm foremen. Another occupational pattern which is clarified by Chart 2 is the ethnic composition of private household workers. Almost two-thirds of all private household workers are Black. The only blue-collar occupation in which Anglo workers comprise more than their own proportion of the total labor force is the craftsmen, foremen and kindred category. In this case, both Anglo and Mexican American workers are slightly overrepresented. Consequently, Black workers have had relatively little success in obtaining the better paying bluecollar positions.

Clearly, there are systematic differences between Anglo and minority workers in Texas. In both blue-collar and white-collar occupations, Anglo workers have employment patterns which result in income distributions which are far more favorable than those of minority workers. Anglo workers comprise more than their share of the employment in all of the higher paying occupational categories. Not only are Anglo workers more likely to be employed in the higher paying occupational categories, but they also tend to have high median incomes within any given occupational category. Within the ranks of



minority workers, Mexican American workers fare somewhat better than their Black counterparts. They are more likely than their Black counterparts to hold white-collar jobs, and they are more likely to hold the higher paying blue-collar jobs. Consequently, the Mexican American worker has a substantially higher median income than the Black worker. This pattern is particularly significant in light of the fact that Mexican American workers have levels of educational attainment which are significantly lower than those of Black workers.



III. SECONDARY VOCATIONAL EDUCATION PROGRAM COMPOSITION

During the fall semester of 1973, more than 312,000 students in grades 9-12 were enrolled in vocational education programs. This represents approximately 40 percent of all students in these grades. A vocational education student may be enrolled in one of seven areas—agriculture occupations, distribution occupations, health care occupations, home economics, office occupations, technical occupations, and trades and industries occupations. To discern the current thrust of high school occupational education programs, statewide enrollment patterns are analyzed in terms of both the sex and ethnic group of participants.

The Advisory Council for Technical-Vocational Education reports that an increasing percentage of Texas high school students are enrolling in vocational education programs instead of general or college preparatory programs. Until recently, participation in vocational education was declining significantly as a progressively larger percentage of high school students were preparing to enter college. Vocational education participation rates hit their lowest point in 1965 when approximately 27 percent of all students in grades 9-12 were enrolled in vocational education. Vocational education enrollments have increased each year since then, and now about 40 percent of high school students are vocational students.

Chart 3 presents the vocational education participation rates by ethnic group for the State of Texas and the surveyed school districts. Statewide, approximately 38 percent of all Anglo students are enrolled in vocational education. Approximately 39 percent of all Mexican American students and 47

⁵Table A-26 in Appendix A presents total enrollment in grades 9-12 by ethnic group for the State and the surveyed school districts.



Vocational Education Participation Rates by Ethnic Group for Selected Texas School Districts, Fall 1973 (Grades 9-12)

			Percent 10 30 50 70 90	Percent 10 30 50 70 90
State of Texas	Mexican	Anglo Black Mexican American	37.9 VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Galveston Anglo 21.2V///////////////////////////////////
Austin ISD	Mexican	Anglo Black Mexican American	30.2[////////////////////////////////////	Houston Anglo 22.4///////////////////////////////////
Beaumont ISD	ıt Mexican	Anglo Black American	\$1.4V////////////////////////////////////	Marshall Anglo 34.07////////////////////////////////////
Dallas ISD	Mexican	Anglo 31ack Mexican American	29. 1V////////////////////////////////////	Port Anglo 24.9////////////////////////////////////
Fort Worth ISD	Mexican	Anglo Black Mexican American	15.8V////////////////////////////////////	San Anglo 21.5////////////////////////////////////
	Leg	Legend		Tyler Black 150 Mexican American 50.04///////////////////////////////////
	NON-VE	on-VE		Waco Black ISD Mexican American 43.2////////////////////////////////////

There are only eight Mexican American students in grades 9-12 in this district. SOURCE: Texas Education Agency: 1973 HEW Fall Civil Rights Survey and Occupational Administrative

percent of all Black students are enrolled in vocational education. Participation rates in the school districts surveyed generally follow patterns of ethnic enrollment similar to the statewide pattern. In nine out of the 11 districts surveyed Anglo students are less likely to participate in vocational education than their minority counterparts. In seven of the school districts surveyed Black students have a higher vocational education participation rate than either Anglo or Mexican American students.

Even though the school districts surveyed generally have patterns of ethnic enrollment congruent with statewide patterns, there is a substantial difference between surveyed districts concerning the degree to which the school districts are involved in vocational education. While approximately 40 percent of all high school students are enrolled in vocational education statewide, three of the surveyed school districts--Fort Worth ISD, Port Arthur ISD, and San Antonio ISD--had districtwide participation rates of 25 percent or less. In fact, ten of the 11 school districts surveyed had participation rates well below the statewide average. To a large extent, this pattern holds within all ethnic groups. The vocational education participation rate for Anglo students is below statewide rates in ten of the 11 districts surveyed. Eight of the 11 districts have participation rates below the statewide rate for Black students, and nine of the 11 districts report participation rates for Mexican American students which are below the statewide participation rate for this group. Although there are 1,156 public school districts in the State of Texas, the 11 school districts surveyed in this study accounted for over one-fourth of all students in grades 9-12 in the State. Consequently, it can be concluded that school districts in smaller cities and rural areas tend to have higher vocational education participation rates than the large metropolitan school districts.



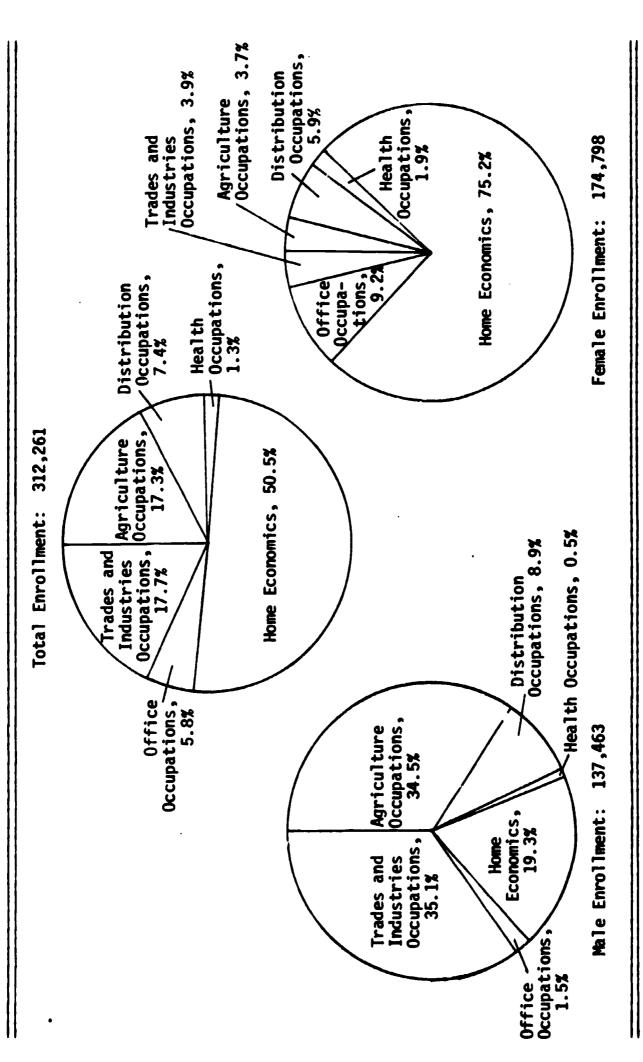
Although the overall participation is significant, the type of occupational education made available to and experienced by students is even more important. Chart 4 presents statewide vocational education enrollment patterns by program and sex. There are substantial differences between the type of programs selected by males and females. Note the manner in which enrollment patterns for each sex differ from the total enrollment patterns. Almost 85 percent of all female students are enrolled in one of two programs —home economics and office occupations. These two programs relate to the traditional roles assigned women in this country. A relatively small percentage of female students are enrolled in the other program areas.

Male enrollment in vocational education follows a different pattern. The two largest vocational programs for male students are agriculture occupations and trades and industries occupations. These two programs account for approximately 70 percent of the total male enrollment in vocational education. It is somewhat surprising that 34 percent of all male students in vocational education are enrolled in agricultural occupations when agriculture represents a declining sector of the labor force. Approximately nine percent of all male vocational education students are enrolled in distribution occupations education. Almost one-fifth of all male students are enrolled in home economics programs. Enrollment in the office occupations program accounted for less than two percent of the male vocational education enrollment. Only 81 students were enrolled in technical occupations programs statewide in the fall semester of 1973. It should be pointed out that technical programs are offered primarily at the post-secondary level.



⁶Appendix A contains tables presenting the number and percent of students enrolled in major vocational education categories for the State and surveyed districts.

Statewide Vocational Education Enrollment by Sex, Fall 1973



Texas Education Agency, Occupational Administrative Services, Austin, Texas. SOURCE:



It is clear that male and female students do not encounter the same type of vocational education. The enrollment patterns are heavily influenced by traditional role prescriptions. The males are engaged in the educational programs leading to jobs which have traditionally been held by men. Female students, on the other hand, are overwhelmingly concentrated in homemaking. Three out of every four female students in vocational education are enrolled in home economics. Although the skills taught in home economics are quite useful, they are generally not the skills which will assist the high school graduate in obtaining a job. An increasingly larger proportion of the adult female population is in the labor market and, in some instances, many of these women are the primary wage earners for the family. (When asked who the principal wage earner was in their family, one-third of the Black students surveyed indicated that the principal wage earner was female.)⁷

Chart 5 presents statewide vocational education enrollment patterns by program and ethnic group. While the differences in enrollment patterns among the three major ethnic groups are not as striking as between the sexes, significant differences do exist. One of the most significant differences among the ethnic groups is the enrollment pattern in vocational agriculture. Statewide, approximately 17 percent of all vocational education students are enrolled in agriculture occupations education. However, Anglo students are almost twice as likely as minority students to be enrolled in vocational agriculture. If Anglo females are eliminated from the picture, it appears that almost 40 percent of all Anglo male students in vocational education are enrolled in vocational agriculture.

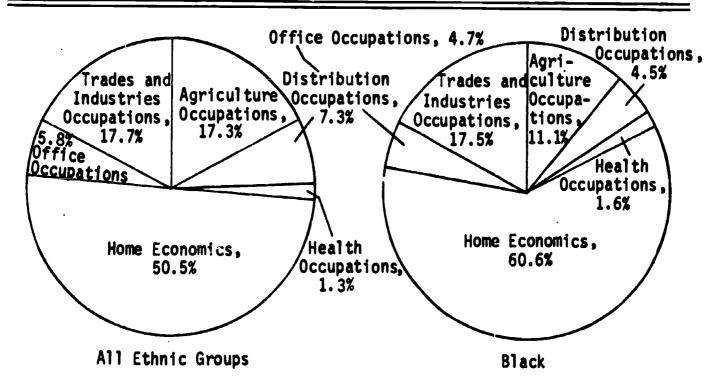
Another program in which there are proportionately more Anglo students than minority students is the distributions occupations programs.

Black Youth and Occupational Education in Texas (Houston, Texas: Center for Human Resources, University of Houston, 1974).



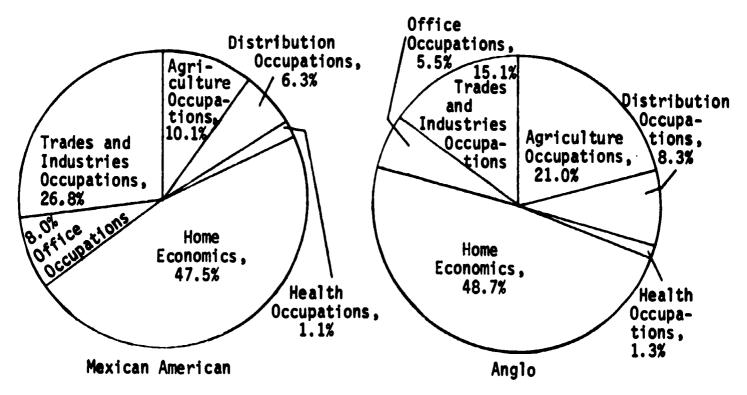
CHART 5

Statewide Vocational Education Enrollment Patterns by Ethnic Group, Fall 1973



Total Enrollments: 312,261

Black Enrollment: 52,649



Mexican American Enrollment: 57,171

Anglo Enrollment: 201,525

SOURCE: Texas Education Agency, Occupational Administrative Services, Austin, Texas



Approximately 8.3 percent of all Anglo students are enrolled in distribution occupations programs, but the enrollment for Mexican American and Black students is 6.3 percent and 4.5 percent, respectively. Although the difference between Anglo and Mexican American enrollment is not significant in this program, Anglo students are almost twice as likely as Black students to be enrolled in these programs.

Home economics programs present another interesting pattern. There is little difference in the frequency with which Anglo and Mexican American students enroll in home economics programs. Slightly less than 50 percent of all Anglo and Mexican American students are enrolled in vocational education, yet almost 61 percent of all Black students are in these programs.

The ethnic enrollment pattern in office occupations differs somewhat from the trends outlined above. In this case the enrollment pattern of Mexican American students differs from that of Black and Anglo students. While Black and Anglo enrollments in these programs are 4.7 percent and 5.5 percent, respectively, Mexican American enrollment is 8.0 percent. On a percentage basis, Mexican American students are more likely than their Black and Anglo counterparts to be enrolled in programs leading to clerical jobs.

The enrollment patterns exhibited by trades and industries programs are somewhat analogous to those of the office occupations programs. In both of these program areas, Mexican American students are more likely than either Black or Anglo students to be enrolled. Almost 27 percent of all Mexican American vocational education students are enrolled in trades and industries programs, while 15.1 percent of all Anglo students and 17.5 percent of all Black students are enrolled in such programs.



Statewide, very few students are enrolled in the health care programs although the demand for these types of occupations has been steadily increasing. Some large school districts, however, are planning to increase their vocational education unit allotment in this area.

The appropriateness of the enrollment patterns outlined above cannot be evaluated without reference to the nature of the labor market structure encountered by students upon graduation from high school. The next section of this report explores the relationship between occupational demand and secondary vocational education enrollment patterns.



IV. RELATIONSHIP BETWEEN VOCATIONAL EDUCATION AND THE LABOR MARKET

In this report, vocational education has been discussed in the context of statewide labor market trends. An attempt is made here to compare patterns of vocational enrollment to the demands of the labor market. Occupational education programs have traditionally been assessed in terms of the adequacy of facilities, the qualifications of instructors, and the quickness and thoroughness with which students acquire the skills being taught. Although the criteria outlined above are important, program evaluations based upon these criteria may well prove inadequate if the skills taught by the program are not those demanded by the labor market. Thus, the success of graduates in obtaining and keeping jobs in the related occupations for which they are trained is an alternative method for assessing the effectiveness of occupational education programs. The structure of the labor market and the patterns of enrollment in vocational education have been previously described. This section of the report analyzes the relationship between the structure of the labor market and secondary vocational education offerings in Texas.

Each year the Texas Employment Commission provides the Texas Education Agency with estimates of the number of new jobs related to areas of occupational instruction which will be available one year and five years hence. These estimates are presented in several different ways. Chart 6 illustrates the estimated demand for new workers for 1975 and 1979. It appears that the structure of occupational demand will not change significantly between 1975 and 1979. In no case is any segment of demand expected to shift by as much as one percent. This stability in the pattern of demand means that there is no conflict between preparing students for the current job market and having programs which will match the job market in five years.



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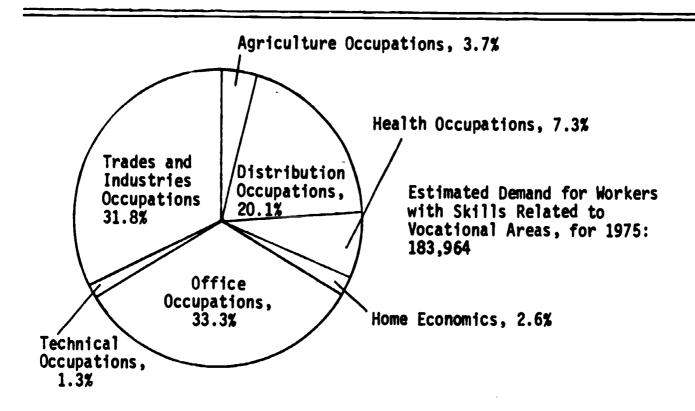
Chart 6 presents only those new jobs associated with vocational education skills. The jobs which normally require a four year college degree are not presented in this chart. The Texas Employment Commission estimates that there will be approximately 184,000 new jobs available in 1975 for workers with skills acquired through vocational education. Approximately one-third of these jobs (61,000) are in the area of office occupations. This represents the single largest area of occupational opportunity through the end of the decade. The second largest area is for those with skills related to the trades and industries area. Almost 32 percent of the total demand for new workers will be in this area for both 1975 and 1979. Another major area of demand will be for workers skilled in the distribution occupations. One out of every five jobs will be in the distribution occupations area. Health care occupations will account for approximately 7.3 percent of the demand in 1975 and 7.5 percent of the demand in 1979. Compared to other categories, the remaining three areas--agriculture occupations, home economics occupations, and technical occupations -- account for a relatively small proportion of the total demand.

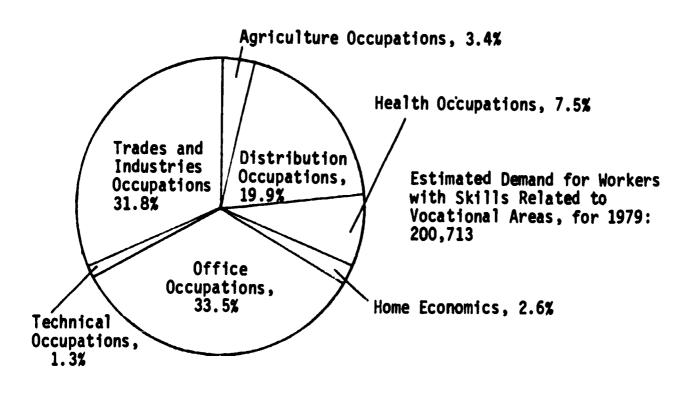
Table 4 presents a comparison between the labor market demand and total vocational education enrollments. The number of vocational completions is approximately one-third of the total program enrollment. Of course, not all of those completing programs will enter the labor market immediately. The Texas Education Agency estimates that approximately 55 percent of all vocational education graduates are available for employment upon graduation. Another 31 percent seek continuing education at a higher level. Others are not available for employment due to marriage, deaths, military enlistments, or other factors.

Ideally, the patterns of vocational enrollment should match the patterns of demand. There should be a relatively large proportion of students enrolled



Estimated Demand for Workers with Skills Related to Vocational Areas, 1975 and 1979





SOURCE: Texas State Plan for Vocational Education (Austin, Texas: Texas Education Agency, 1974).



in areas with a large demand for new workers and areas with a relatively small demand should have few students enrolled. Table 4 indicates that the patterns

TABLE 4

Estimated Demand for Workers
and Enrollment in Vocational Education Programs

Type of	Workers Demanded for 1975		Enrol1	Vocational Enrollments 1973-1974	
Program	No.	<u> </u>	No.		
Agriculture Occupations	6,774	3.7	54,079	17.3	
Distribution Occupations	36,949	20.1	22,721	7.4	
Health Occupations	13,377	7.3	4,135	1.3	
Home Economics Occupations	4,761	2.6	157,695	50.5	
Office Occupations	61,216	33.3	18,219	5.8	
Technical Occupations	2,322	1.3	81		
Trades and Industries Occupations	58,562	31.8	55,206	17.7	
TOTAL	183,964	100.0	312,261	100.0	

SOURCE: Texas State Flan for Vocational Education (Austin, Texas: Texas Education Agency, 1974).

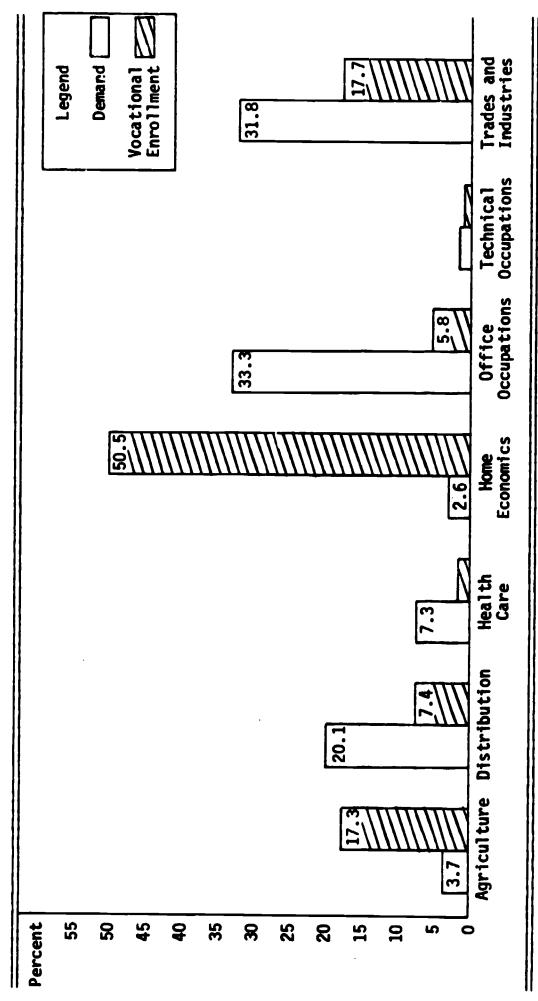
of vocational education enrollment do not match the demands of the labor market. The lack of consequence between patterns of demand and vocational enrollment is graphically illustrated in Chart 7. The primary source of the mismatch is the disproportionately large enrollments in agriculture and home economics. Both of these programs have large enrollments, and it appears that many of these graduates will not find jobs related to their high school vocational training.

Home economics has over 150,000 enrollees at the secondary level, yet there are less than 5,000 jobs available annually for individuals trained in this



CHART 7

Patterns of Occupational Demand and Secondary Vocational Education Enrollment Patterns in Texas



Texas State Plan for Vocational Education (Austin, Texas: Texas Education Agency, 1974). SOURCE:



area. It is often argued that the vast majority of those enrolled in home economics courses are actually enrolled in useful homemaking courses and should not be compared to the labor market since these skills are to be utilized by the homemaker in her own home. While recognizing the importance of homemaking skills, it must also be remembered that more women are entering the labor market before marriage and continuing their employment after marriage. If homemaking courses are pursued to the exclusion of developing more marketable skills, a large proportion of the female labor force will have considerable difficulty in obtaining employment.

The proportion of the population engaged in agricultural work has steadily declined during this century. Statewide, there are 14,000 fewer jobs in agriculture now than there were in 1970. The only demand for new workers is generated by the need to replace those who retire, die, or change occupations. Although some of the skills developed in vocational agriculture programs are transferable to jobs with "agribusiness" firms, it is doubtful that these firms can provide employment for the large number of vocational agriculture graduates. Careful study is needed to determine if students enrolled in this program are likely to find long-term, well-paying employment in the agricultural and related sectors of the economy. Students enrolling in this program should be fully aware of the long-term trends toward declining employment opportunities in this area.

The other five programs show a mismatch of another type--their enrollments are too <u>low</u>. In every case, the number of students enrolled are fewer than those required to supply the number of workers needed each year. While it



would be necessary to have enrollments of two to three times the annual demand to meet the need of the area, in no case do enrollments even meet the annual demand.

While there is a demand for approximately 13,000 new workers each year for the health care occupations, only about 4,000 students are presently enrolled. Overall demand for new workers is expected to increase 9.1 percent during the five year period from 1975 to 1979, but demand for workers in the health care occupations is expected to increase by 12.3 percent. Since a shortage of qualified workers already exists in this field, additional units need to be allocated and enrollments in these programs encouraged.

A similar situation exists with regard to technical occupations. Very few students are enrolled in these programs, but a shortage of trained personnel exists. In this case, the lack of students at the secondary level is offset by more extensive enrollments at the post-secondary level. Nonetheless, where feasible, the growth of enrollments in technical programs at the secondary level should be encouraged.

Similar conditions exist with regard to office occupations. While over 60,000 new jobs become available each year, only 18,000 students are enrolled in these programs at the secondary level. Based on the demand for workers trained in this area, one would expect an enrollment of perhaps 100,000 students. This program could be expanded severalfold without endangering the ability of students to find jobs upon graduation.

To a lesser extent, the remaining two programs--distribution occupations and the trades and industries occupations--would also benefit from expanded



⁸Derived from estimates of occupational demand presented in the 1974 Texas State Plan for Vocational Education (Austin, Texas: Texas Education Agency, 1974).

enrollments. While the gap between supply and demand is not as large here as in the program areas discussed above, enrollments in both of these program areas are substantially below levels justifiable by labor market demand.



V. SUMMARY

Enrollment in high school vocational education programs has shown a dramatic increase over the last ten years in Texas. Whereas only one out of three students was enrolled in vocational programs in 1965, today more than four out of ten students participate in these programs. Increased funding and interest, a changing labor market, and changing attitudes in society have all contributed to the recent upsurge in occupational training programs. More students today are opting for steady employment after graduation from high school, and many have come to realize the importance of having some kind of marketable skill.

Vocational education programs in Texas consist of eight major categories established by the U. S. Office of Education. These include agriculture, distribution occupations, health care occupations, home economics, office occupations, technical education, trades and industrial occupations, and a category which includes programs not elsewhere classified. These programs are available to varying degrees within many Texas high schools. In some instances, area schools or technical centers are created where the whole range of occupational programs are offered.

The analysis of the statewide economy and trends in occupational demand undertaken in this report indicates that there is a serious mismatch between enrollments in secondary vocational education programs and the labor market. Only a small proportion of the total occupational demand is related to agriculture occupations (3.7 percent) and home economics occupations (2.6 percent), yet the majority (67.8 percent) of students enrolled in vocational programs are concentrated in one of these two areas. On the other hand, the other program areas tend to have fewer students enrolled than is justifiable in terms



of labor market demand. There is a severe shortage of qualified workers for both health care occupations and technical occupations. The number of students enrolled in these programs is small compared to the demand for trained personnel. Numerically, office occupations offer more employment opportunities than any other area through the end of the decade, but far fewer students are enrolled in this program than are required to meet labor market demand. To a somewhat lesser extent, a similar situation exists with regard to distribution occupations. While the gap between supply and demand for the trades and industries occupations is not as serious as for the programs discussed above, this program, too, could place more graduates than currently complete the course each year.

There appear to be distinct differences between the types of programs offered in large as opposed to small school districts. Home economics programs
are more prevalent in the larger urban areas while agricultural programs are
found predominately in the small, rural districts. In addition, the variety
of program offerings tends to be less in the smaller districts. The school
districts involved in this study, which included four of the largest districts
in the State, have lower vocational education participation rates than the
State average; i.e., a smaller percentage of their students are enrolled in
vocational education than other school districts in Texas. Thus, it appears
that smaller school districts tend to have higher participation rates than
larger districts in metropolitan areas.

Program enrollments also show that there are distinct differences between male and female enrollment patterns as well as among the three major ethnic groups. More than half of all students in vocational programs are females (56 percent). Nearly half are Black (47 percent), with the remainder being



Mexican American (39 percent) or Anglo (38 percent). Three-fourths of all females enrolled in vocational education are in home economics programs, while male vocational students are concentrated in the trades and industries programs (35 percent) and vocational agriculture programs (34.5 percent). Similar patterns were observed in the school districts surveyed by this study, especially in the larger urban areas having a tri-ethnic enrollment. In the larger districts, Blacks appeared to be more overrepresented in vocational programs than Mexican Americans and Anglos. Mexican Americans also tended to be slightly overrepresented in these districts. The school districts included in this study, however, had lower vocational education participation rates than the State average.

State vocational enrollment figures by ethnic group reveal some interesting patterns. Although 60 percent of all Black students are enrolled in home economics programs, less than 50 percent of Anglo and Mexican American students are in this program. More Anglos than minority students are enrolled in agriculture programs. Black (4.5 percent) and Mexican American (6.3 percent) students are less likely than Anglo (8.3 percent) students to be enrolled in distribution occupations. Mexican Americans continue to be overrepresented in the trades and industry category—almost 30 percent of all Mexican American students are in such programs, compared to about 16 percent of the Anglo and Black students. Mexican American students (8 percent) are also much more likely than either Black (4.7 percent) or Anglo (5.3 percent) students to be enrolled in office occupation courses. There are, of course, some variations in local patterns.

Although a few school districts provide a full spectrum of vocational courses, it is apparent that, in general, vocational education offerings in



Texas do not reflect the State's present and future manpower needs. There is still an overabundance of home economics and agriculture teacher units, and there are not enough teacher units in programs presently in demand—health care, technical occupations, and the distribution and clerical fields. This, coupled with the fact that many students are not getting any training at all, indicates that many high schools in Texas are not adequately gearing their efforts to meet the new challenges thrust upon them by a changing society.



APPENDIX A

VOCATIONAL EDUCATION ENROLLMENT PATTERNS FOR TEXAS AND SELECTED SCHOOL DISTRICTS

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TABLE A-1 Vocational Enrollment, Fall 1973, By Program & Sex For The State of Texas

USOE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	54,079 (17.3) 50,153 (16.1)	6,502 (3.7) 2,890 (1.7)	47,577 (34.5) 47,263 (34.3)
04	Distributive Education	22,721 (7.3)	10,377 (5.9)	12,344 (9.0)
07	Health Occupations	4,135 (1.3)	3,384 (1.9)	751 (0.5)
09 09.01 09.02	Home Economics Useful Gainful	157,695 (50.5) 144,711 (46.3) 12,984 (4.2)	131,136 (75.2) 129,023 (74.0) 2,113 (1.2)	26,559 (19.3) 15,688 (11.4) 10,871 (7.9)
14	Office Occupations	18,219 (5.8)	16,173 (9.3)	2,046 (1.5)
6	Technical Education	81 -	12 -	69 -
7	Trades and Industrial Occupations	55,206 (17.7)	6,860 (3.9)	48,346 (35.1)
9	Group Guidance & N.E.C.	125 -	19 -	106 (0.1)
	TOTALS	312,261(100.0)	174,464(100.0)	137,798(100.0)



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TABLE A-2

Vocational Enrollment, Fall 1973, By Program & Ethnic Group
For The State of Texas

USOE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	54,079 (17.3) 50,153 (16.1)	5,849 (11.1) 5,005 (9.5)	5,777 (10.1) 5,097 (8.9)	42,272 (21.0) 39,874 (19.8)
04	Distributive Education	22,721 (7.3)	2,360 (4.5)	3,603 (6.3)	16,724 (8.3)
07	Health Occupations	4,135 (1.3)) 839 (1.6)	641 (1.1)	2,627 (1.3)
09 09.01 09.02	Home Economics Useful Gainful	157,695 (50.5) 144,711 (46.3) 12,984 (4.2)	31,908 (60.6) 28,691 (54.5) 3,217 (6.1)	27,191 (47.5) 23,716 (41.5) 3,475 (6.0)	98,195 (48.7) 91,940 (45.6) 6,255 (3.1)
14	Office Occupations	18,219 (5.8)	2,452 (4.7)	4,600 (8.0)	11,086 (5.5)
16	Technical Education	81 -	12 -	10 -	58 -
17	Trades and Industrial Occupations	55,206 (17.7)	9,217 (17.5)	15,305 (26.8)	30,494 (15.1)
19	Group Guidance & N.E.C.	125 -	12 -	44 -	69 -
	TOTALS	312,261(100.0)	52,649(100.0)	57,171(100.0)	201,525(100.0)



Vocational Enrollment
Fall 1973 By Program and Sex
Austin Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	124 (2.7) 100 (2.2)	32 (1.1) 13 (0.4)	92 (5.9) 87 (5.6)
04	Distributive Education	510 (11.2)	283 (9.4)	227 (14.6)
07	Health Occupations	60 (1.3)	53 (1.8)	7 (0.4)
09 09.01 09.02	Home Economics Useful Gainful	2884 (63.3) 2585 (56.7) 299 (6.5)	2201 (73.4) 2099 (70.0) 102 (3.4)	683 (43.8) 486 (31.2) 197 (12.6)
14	Office Occupations	336 (7.4)	302 (10.1)	34 (2.2)
16	Technical Education	-	-	-
17	Trades and Industrial Occupation	644 (14.1)	129 (4.3)	515 (33.05)
	TOTALS	4558(100.0)	3000(100.0)	1558(100.0)



TABLE A-4

Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Austin Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	124 (2.7) 100 (2.2)	0	5 (0.6) 3 (0.4)	119 (4.2) 97 (3.4)
04	Distributive Education	510 (11.2)	67 (7.6)	87 (10.5)	355 (12.5)
07	Health Occupations	60 (1.3)	11 (1.3)	5 (0.6)	44 (1.6)
09 09. 01 09.02	Home Economics Useful Gainful	2884 (63.3) 2585 (56.7) 299 (6.5)	675 (76.8) 604 (68.7) 71 (8.1)	435 (55.3) 365 (43.9) 70 (8.4)	1764 (62.3) 1612 (56.9) 152 (5.4)
14	Office Occupations	336 (7.4)	44 (5.0)	85 (10.2)	205 (7.2)
16	Technical Education	•	-	-	•
17	Trades and Industrial Occupation	644 (14.1)	82 (9.3)	215 (25.8)	346 (12.2)
	TOTALS	4558(100.0)	879(100.0)	832(100.0)	2833(100.0)



TABLE A-5

Vocational Enrollment
Fall 1973 By Program and Sex
Beaumont Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	97 (6.0) 97 (6.0)	17 (1.8) 17 (1.8)	80 (11.7) 80 (11.7)
04	Distributive Education	168 (10.4)	83 (8.8)	85 (12.4)
07	Health Occupations	17 (1.0)	15 (1.6)	2 (0.3)
09 09.01 09.02	Home Economics Useful Gainful	940 (57.9) 841 (51.8) 99 (6.1)	691 (73.6) 674 (71.8) 17 (1.8)	249 (36.5) 167 (24.5) 82 (12.0)
14	Office Occupations	98 (6.0)	96 (10.2)	2 (0.3)
16	Technical Education	1 (0.1)	0	1 (0.1)
17	Trades and Industrial Occupation	301 (18.6)	37 (3.9)	264 (38.6)
	TOTALS	1622(100.0)	939(100.0)	683(100.0)



TABLE A-6

Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Beaumont Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	97 (6.0) 97 (6.0)	10 (1.3) 10 (1.3)	6 (7.8) 6 (7.8)	80 (10.6) 80 (10.6)
04	Distributive Education	168 (10.4)	54 (6.9)	4 (5.2)	110 (14.6)
07	Health Occupations	17 (1.0)	4 (0.5)	0	13 (1.7)
09 09.01 09.02	Home Economics Useful Gainful	940 (57.9) 841 (51.8) 99 (6.1)	538 (68.6) 476 (60.7) 62 (7.9)	33 (42.º) 26 (33.8) 7 (9.1)	364 (48.2) 334 (44.2) 30 (4.0)
14	Office Occupations	98 (6.0)	34 (4.3)	12 (15.6)	52 (6.9)
16	Technical Education	1 (0.1)	0	0	1 (0.1)
17	Trades and Industrial Occupation	301 (18.6)	144 (18.4)	22 (28.6)	135 (17.9)
	TOTALS	1622(100.0)	784(100.0)	77(100.0)	755(100.0)



Vocational Enrollment
Fall 1973 By Program and Sex
Dallas Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	186 (1.3) 103 (0.7)	57 (0.6)	129 (3.0) 103 (2.4)
04	Distributive Education	1030 (7.1)	422 (4.1)	608 (14.3)
07	Health Occupations	505 (3.5)	417 (4.1)	88 (2.1)
09 09.01 09.02	Home Economics Useful Gainful	9054 (62.7) 8518 (59.0) 536 (3.7)	7943 (78.0) 7739 (76.0) 204 (2.0)	111 (26.1) 779 (18.3) 332 (7.8)
4	Office Occupations	976 (6.8)	868 (8.5)	108 (2.5)
6	Technical Education	64 (0.4)	9 (0.1)	55 (1.3)
7	Trades and Industrial Occupation	2626 (18.2)	461 (4.5)	2165 (48.4)
	TOTALS	14441(100.0)	10177(100.0)	4264 (100.0)



TABLE A-8

Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Dallas Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	186 (1.3) 103 (0.7)	29 (0.5)	12 (1.0)	143 (2.0) 99 (1.4)
04	Distributive Education	1030 (7.1)	287 (4.8)	80 (6.5)	660 (9.3)
07	Health Occupations	505 (3.5)	189 (3.1)	37 (3.0)	272 (3.8)
09 09.01 09.02	Home Economics Useful Gainful	9054 (62.7) 8518 (59.0) 536 (3.7)	4272 (70.8) 4076 (67.5) 196 (3.2)	710 (57.9) 647 (52.8) 63 (5.1)	4022 (56.7) 3747 (52.8) 275 (*3.9)
04	Office Occupations	976 (6.8)	393 (6.5)	132 (10.8)	445 (6.3)
16	Technical Education	64 (0.4)	12 (0.2)	5 (0.4)	46 (0.6)
17	Trades and Industrial Occupation	2626 (18.2)	855 (14.2)	250 (20.4)	1510 (21.3)
	TOTALS	14441(100.0)	6037(100.0)	1226 (1 90: 0)	7098(100.0)



Vocational Enrollment
Fall 1973 By Program and Sex
Fort Worth Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	•	•	-
04	Distributive Education	405 (7.9)	210 (6.8)	195 (9.4)
07	Health Occupations	144 (2.8)	128 (4.2)	16 (0.8)
09 09.01 09.02	Home Economics Useful Gainful	2293 (44.6) 1880 (36.5) 413 (8.0)	1794 (58.3) 1670 (54.2) 124 (4.0)	499 (24.1) 210 (10.2) 289 (14.0)
14	Office Occupations	677 (13.2)	599 (19.5)	78 (3.8)
16	Technical Education	-	-	-
17	Trades and Industrial Occupation	1628 (31.6)	348 (11.3)	1280 (61.9)
	TOTALS	5147(100.0)	3079(100.0)	2068(100.0)



TABLE A-10

Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Fort Worth Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production				•
04	Distributive Education	405 (7.9)	80 (4.0)	11 (1.8)	312 (12.8)
07	Health Occupations	144 (2.8)	38 (1.9)	29 (4.1)	77 (3.2)
09 09.01 09.02	Home Economics Useful Gainful	2293 (44.6) 1880 (36.5) 413 (8.0)	977 (48.9) 774 (3º.8) 203 (10.1)	158 (22.5) 109 (15.5) 49 (6.8)	1152 (47.3) 994 (40.8) 158 (6.5)
14	Office Occupations	677 (13.2)	218 (10.9)	128 (18.2)	330 (13.6)
16	Technical Education	-	-	-	-
17	Trades and Industrial Occupation	1628 (31.6)	684 (34.3)	377 (53.6)	562 (23.1)
	TOTALS	5147(100.0)	1997(100.0)	703(100.0)	2435(100.0)



TABLE A-11

Vocational Enrollment
Fall 1973 By Program and Sex
Galveston Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	4 (0.3)	4 (0.5)	0
04	Distributive Education	58 (4.7)	19 (2.5)	39 (8.1)
07	Health Occupations	20 (1.6)	16 (2.1)	4 (0.8)
09 09.01 09.02	Home Economics Useful Gainful	689 (55.7) 523 (47.9) 96 (7.8)	548 (72.4) 521 (68.8) 27 (3.6)	141 (29.3) 72 (15.0) 69 (14.3)
14	Office Occupations	144 (11.6)	117 (15.5)	27 (5.6)
16	Technical Education	-	-	-
17	Trades and Industrial Occupation	323 (26.1)	53 (7.0)	270 (56.1)
	TOTALS	1238(100.0)	757(100.0)	481(100.0)



Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Galveston Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01. 1	Agriculture Production	4 (0.3)	0	3 (1.2)	1 (0.4)
04	Distributive Education	58 (4.7)	13 (1.8)	18 (7.2)	27 (9.6)
07	Health Occupations	20 (1.6)	3 (0.4)	8 (3.2)	9 (3.2)
09 09.01 09.02	Home Economics Useful Gainful	689 (55.7) 593 (47.9) 96 (7.8)	483 (68.5) 434 (61.6) 49 (7.0)	102 (40.8) 74 (29.6) 28 (11.2)	104 (36.9) 85 (30.1) 19 (6.7)
14	Office Occupations	144 (11.6)	60 (8.5)	38 (15.2)	46 (16.3)
16	Technical Education	•	•	-	•
17	Trades and Industrial Occupation	323 (26.1)	146 (20.7)	81 (32.4)	95 (33.7)
	TOTALS	1238(100.0)	705(100.0)	250(100.0)	282(100.0)



TABLE A-13

Vocational Enrollment
Fall 1973 By Program and Sex
Houston Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	502 (3.1) 469 (2.9)	125 (1.3) 92 (0.9)	377 (6.0) 377 (6.0)
04	Distributive Education	1537 (9.5)	807 (8.0)	730 (11.7)
07	Health Occupations	677 (~4.2)	488 (4.9)	189 (3.0)
09 09.01 09.02	Home Economics Useful Gainful	8597 (53.0) 7943 (48.9) 654 (4.0)	6920 (69.3) 6724 (67.3) 196 (2.0)	1677 (26.8) 1219 (19.5) 458 (7.3)
14	Office Occupations	1263 (7.8)	997 (10.0)	266 (4.3)
16	Technical Education	-	-	-
17	Trades and Industrial Occupations	3656 (22.5)	649 (6.5)	3007 (48.1)
	TOTALS	16232(100.0)	9986(100.0)	6246(100.0)



TABLE A-14

Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Houston Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agricul ture Production	502 (3.1) 469 (2.9)	73 (0.9) 52 (0.7)	23 (1.1) 20 (1.0)	408 (6.6) 397 (6.4)
04	Distributive Education	1537 (9.5)	577 (7.2)	181 (9.0)	774 (12.5)
07	Health Occupations	677 (4.2)	277 (3.5)	127 (6.3)	258 (4.2)
09 09.01 09.02	Home Economics Useful Gainful	8597 (53.0) 7943 (48.9) 654 (4.0)	4808 (60.2) 4402 (55.1) 406 (5.1)	707 (35.2) 649 (32.3) 58 (2.9)	3056 (49.5) 2866 (46.4) 190 (3.1)
14	Office Occupations	1263 (7.8)	508 (6.4)	256 (12.8)	498 (8.1)
16	Technical Education	•	•	-	-
17	Trades and Industrial Occupation	3656 (22.5)	1741 (21.8)	712 (35.5)	1189 (19.2)
	TOTALS	16232(100.0)	7982(100.0)	2006(100.0)	6183(100.0)



TABLE A-15

Vocational Enrollment
Fall 1973 By Program and Sex
Marshall Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	181 (23.5) 180 (23.4)	4 (1.2) 3 (0.9)	177 (40.7) 177 (40.7)
04	Distributive Education	35 (4.5)	13 (3.9)	22 (5.1)
07	Health Occupations	28 (3.6)	25 (7.5)	3 (0.7)
09 09.01 09.02	Home Economics Useful Gainful	285 (37.0) 226 (29.4) 59 (7.7)	211 (63.0) 192 (57.3) 19 (5.7)	74 (17.0) 34 (7.8) 40 (9.2)
14	Office Occupations	54 (7.0)	52 (15.5)	2 (0.5)
16	Technical Education	-	-	-
17	Trades and Industrial Occupation	187 (24.3)	30 (9.0)	157 (36.1)
	TOTALS	770(100.0)	335(100.0)	435(100.0)



TABLE A-16

Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Marshall Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	181 (23.5) 180 (23.4)	82 (22.0) 81 (21.7)	0	99 (25.0) 99 (25.0)
04	Distributive Education	35 (4.5)	13 (3.5)	0	21 (5.3)
07	Health Occupations	28 (3.6)	6 (1.6)	0	22 (5.5)
09 09.01 09.02	Home Economics Useful Gainful	285 (37.0) 226 (29.4) 59 (7.7)	175 (46.9) 133 (35.7) 42 (11.3)	0 0 0	110 (27.8) 93 (23.5) 17 (4.3)
14	Office Occupations	54 (7.0)	12 (3.2)	0	42 (10.6)
16	Technical Education	-	•	•	-
17	Trades and Industrial Occupation	187 (24.3)	85 (22.8)	0	102 (25.8)
	TOTALS	770(100.0)	373(100.0)	0	396(100.0)



TABLE A-17

Vocational Enrollment
Fall 1973 By Program and Sex
Port Arthur Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	- -	•	•
04	Distributive Education	195 (16.6)	76 (9.9)	119 (29.3)
07	Health Occupations	53 (4.5)	46 (6.0)	7 (1.7)
09 09.01 09.02	Home Economics Useful Gainful	573 (48.7) 543 (46.1) 30 (2.5)	540 (70.0) 535 (69.4) 5 (0.6)	33 (8.1) 8 (2.0) 25 (6.2)
14	Office Occupations	64 (5.4)	64 (8.3)	0
16	Technical Education	•	-	•
17	Trades and Industrial Occupation	292 (24.8)	45 (5.8)	247 (60.8)
	TOTALS	1177(100.0)	771(100.0)	406(100.0)



Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Port Arthur Independent School District

US UE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	-	-	•	•
04	Distributive Education	195 (16.6)	39 (7.9)	3 (7.1)	152 (23.9)
07	Health Occupations	53 (4.5)	20 (4.1)	1 (2.4)	32 (5.0)
09 09.01 09.02	Home Economics Useful Gainful	573 (48.7) 543 (46.1) 30 (2.5)	339 (68.8) 339 (68.8) 0	17 (40.5) 14 (33.3) 3 (7.2)	213 (33.5) 186 (29.3) 27 (4.3)
14	Office Occupations	64 (5.4)	15 (3.0)	7 (16.7)	42 (6.6)
16	Technical Education	· •	-	-	•
17	Trades and Industrial Occupation	292 (24.8)	80 (16.2)	15 (35.7)	196 (30.9)
	TOTALS	1177(100.0)	493(100.0)	42(100.0)	635(100.0)



Vocational Enrollment
Fall 1973 By Program and Sex
San Antonio Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	36 (0.7) 36 (0.7)	7 (0.3) 7 (0.3)	29 (1.3) 29 (1.3)
04	Distributive Education	261 (5.3)	132 (4.9)	129 (5.6)
07	Health Occupations	62 (1.3)	50 (1.9)	12 (0.5)
09 09.01 09. 02	Home Economics Useful Gainful	2494 (50.3) 2311 (46.6) 183 (3.7)	1870 (70.0) 1810 (67.8) 60 (2.2)	624 (27.3) 501 (21.9) 123 (5.4)
4	Office Occupations	425 (8.6)	400 (15.0)	25 (1.1)
16	Technica! Education	-	-	-
	Trades and Industrial Occupations .	1678 (33.9)	212 (7.9)	1466 (64.2)
	TOTALS	4956(100.0)	2671 (100.0)	2285(100.0)



Vocational Enrollment
Fall 1973 By Program and Ethnic Group
San Antonio Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	36 (0.7) 36 (0.7)	0	10 (0.3) 10 (0.3)	26 (2.6) 26 (2.6)
04	Distributive Education	261 (5.3)	24 (3.1)	156 (4.9)	80 (7.9)
07	Health Occupations	62 (1.3)	2 (0.3)	42 (1.3)	18 (1.8)
09 09.01 09.02	Home Economics Useful Gainful	2494 (50.3) 2311 (46.6) 183 (3.7)	585 (75.7) 561 (72.6) 24 (3.1)	1336 (42.2) 1214 (38.4) 122 (3.9)	570 (56.4) 534 (52.9) 36 (3.6)
14	Office Occupations	425 (8.6)	22 (2.8)	310 (9.8)	92 (9.1)
16	Technical Education	-	•	•	-
17	Trades and Industrial Occupation	1678 (33.9)	140 (18,})	1311 (41.4)	224 (22.2)
	TOTALS	4956(100.0)	773(100.0)	3165(100.0)	1010(100.0)



TABLE A-21

Vocational Enrollment
Fall 1973 By Program and Sex
Tyler Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	209 (12.2)	4 (0.3)	205 (38.2)
)4	Distributive Education	75 (4.4)	28 (2.3)	47 (8.8)
07	Health Occupations	34 (33 (2.8)	1 (0.2)
09 09.01 09.02	Home Economics Useful Gainful	1111 (64.9) 1045 (61.0) 66 (3.9)	1051 (89.4) 1044 (88.9) 7 (0.6)	60 (11.2) 1 (0.2) 59 (11.0)
14	Office Occupations	52 (3.0)	52 (4.4)	0
6	Technical Education	-	-	-
7	Trades and Industrial Occupation	231 (13.5)	7 (0.6)	224 (41.7)
	TOTALS	1712(100.0)	1175(100.0)	537(100.0)



TABLE A-22

Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Tyler Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	209 (12.2)	51 (8.7)	0	158 (14.3)
04	Distributive Education	75 (4.4)	6 (1.0)	0	69 (6.3)
07	Health Occupations	34 (2.0)	6 (1.0)	1 (4.8)	27 (2.5)
09 09.01 09.02	Home Economics Useful Gainful	1111 (64.9) 1045 (61.0) 66 (3.9)	446 (75.7) 435 (73.9) 11 (1.8)	18 (85.7) 18 (85.7) 0	647 (58.7) 592 (53.7) 55 (5.0)
14	Office Occupations	52 (3.0)	8 (1.4)	0	44 (4.0)
16	Technical Education	-	-	-	-
]7	Trades and Industrial Occupation	<i>2</i> 31 (13.5)	72 (12.2)	2 (9.5)	157 (14.2)
	TOTALS	1712(100.0)	589(100.0)	21(100.0)	1102(100.0)



TABLE A-23

Vocational Enrollment
Fall 1973 By Program and Sex
Waco Independent School District

USOE CODE	PROGRAM TITLE	TOTAL	FEMALE	MALE
01 01.01	Agriculture Production	•	•	•
04	Distributive Education	145 (7.6)	22 (1.8)	123 (17.7)
07	Health Occupations	64 (3.4)	60 (5.0)	4 (0.6)
09 09.01 09. 02	Home Economics Useful Gainful	1252 (65.9) 1095 (57.7) 157 (8.3)	1012 (83.9) 979 (81.2) 124 (10.3)	240 (34.6) 116 (16.7) 33 (4.8)
14	Office Occupations	82 (4.3)	77 (6.4)	5 (0.7)
16	Technical Education	-	-	-
17	Trades and Industrial Occupation	356 (18.7)	35 (2.9)	321 (46.3)
	TOTALS .	1899(100.0)	1206(100.0)	693/100.0)



Vocational Enrollment
Fall 1973 By Program and Ethnic Group
Waco Independent School District

US OE CODE	PROGRAM TITLE	TOTAL	BLACK	MEXICAN AMERICAN	ANGLO
01 01.01	Agriculture Production	•	•	-	•
04	Distributive Education	145 (7.6)	25 (3.9)	6 (2.5)	114 (11.2)
07	Health Occupations	64 (3.4)	37 (5.7)	4 (1.7)	23 (2.3)
09 09.01 09.02	Home Economics Useful Gainful	1252 (65.9) 1095 (57.7) 157 (8.3)	420 (65.2) 377 (58.5) 43 (6.8)	147 (62.3) 135 (57.2) 12 (5.1)	684 (67.2) 583 (57.3) 101 (9.9)
14	Office Occupations	82 (4.3)	17 (.2.6)	18 (7.6)	47 (4.6)
16	Technical Education	-	-	-	•
17	Trades and Industrial Occupation	356 (18.7)	145 (22.5)	61 (25.8)	150 (14.7)
	TOTALS	1899(100.0)	644(100.0)	236(100.0)	1018(100.0)



TABLE A-25

ENROLLMENT IN GRADES 9-12 BY SEX FOR THE STATE OF TEXAS AND SURVEYED SCHOOL DISTRICTS, 1971-1972

District	Total	Male	Female
Austin ISD	16,317	8,443	7,874
Beaumont ISD	4,590	2,370	2,220
Dallas ISD	48,722	24,742	23,980
Fort Worth ISD	24,902	12,785	12,117
Galveston ISD	3,482	1,814	1,668
Houston ISD	61,024	30,679	30,345
Marshall ISD	2,224	1,152	1,072
Port Arthur ISD	4,045	2,531	2,514
San Antonio ISD	22,314	11,557	10,757
Tyler ISD	5,043	2,530	2,513
Waco ISD	6, 1	3,213	2,978

SOURCE: Texas Education Agency, Management Information Center, Austin, Texas.



TABLE A-26

ENROLLMENT IN GRADES 9-12 BY ETHNIC GROUP
FOR THE STATE OF TEXAS AND SURVEYED SCHOOL DISTRICTS
1973-1974

-	Tota	al	B1 ac		lexican Am	erican		0
District	No.	*	No.	%	No.	*	No.	*
State of Texas	791,415	100.0	111,349	14.1	145,858	18.4	513,526	64.9
Austin ISD	16,724	100.0	2,099	12.6	2,748	16.4	11,833	70.7
Beaumont ISD	3,417	100.0	1,526	44.7	92	2.7	1,798	52.6
Dallas ISD	43,195	100.0	15,091	34.9	3,459	8.0	24,415	56 , 5
Fort Worth ISD	23,254	100.0	6,465	27.8	1,334	5.7	15,405	66.2
Galveston ISD	3,445	100.0	1,315	38.2	780	22.6	1,328	38.5
Houston ISD	57,001	100.0	22,019	38.6	7,027	12.3	27,641	48.5
Marshall ISD	2,073	100.0	899	43.4	8	0.4	1,165	56.2
Port Arthur ISD	4,889	100.0	2,109	43.1	208	4.3	2,554	52.2
San Antonio ISD	19,823	100.0	3,325	16.8	11,707	59.1	4,703	23.7
Tyler ISD	4,831	100.0	1,316	27.2	42	U.9	3,466	71.7
Waco ISD	5,581	100.0	1,490	26.7	582	10.4	3,503	62.8

SOURCE: Texas Education Agency, Management Information Center, Austin, Texas.



APPENDIX B

OCCUPATIONAL EMPLOYMENT BY ETHNIC GROUP

Table <u>Number</u>	<u>Title</u> Page	E
B-1	State of Texas, 1970	
B-2	Austin SMSA, 1970	
B-3	Beaumont-Port Arthur-Orange SMSA, 1970	
B-4	Dallas SMSA, 1970	
B-5	Fort Worth SMSA, 1970	
B-6	Galveston-Texas City SMSA, 1970	
B-7	Houston SMSA, 1970	
B-8	Marshall (Harrison County), 1970	
B-9	San Antonio SMSA, 1970	
B-10	Tyler SMSA, 1970	
B-11	Waco SMSA, 1970	



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OCCUPATIONAL EMPLOYMENT BY ETHNIC GROUP

STATE OF TEXAS, 1970

1	OCCUPATION	ALL ETHNIC GROUPS	NIC S	ANGLO	07	BLACK	[-	MEXICAN AMERICANS	IN ANS
1.78	TOTAL EMPLOYMENT	4,141,529 (100.0)	(100.0)	3,065,444 (100.0)	(100.0)	475,660 (100.0)	(100.0)	600,425	(100.0)
1	Professional, technical and kindred workers	595,959	(14.4)	516,340	(16.8)	34,208	(7.2)	45,411	(7.6)
lar	Managers and administrators, except farm	368,470	(8.8)	328,234	(10.7)	10,004	(2.1)	30,232	(5.0)
K	Sales workers	323,083	(7.8)	20,,024	(9.1)	9,088	(1.9)	33,971	(5.7)
_	Clerical and kindred workers	720,912	(17.4)	596,887	(19.5)	41,998	(8.8)	82,027	(13.7)
	Craftsmen, foremen and kindred workers	590,466	(14.3)	458,425	(15.0)	41,779	(8.8)	90,262	(15.0)
73	Operatives, except transport	460,830	(11.11)	295,103	(9.6)	68,123	(14.3)	97,604	(16.3)
	Transport equipment operatives	166,354	(4.0)	101,760	(3.3)	33,040	(6.9)	31,554	(5.3)
	Laborers, except farm	201,937	(4.9)	95,664	(3.1)	53,901	(11.3)	52,372	(8.7)
	Farmers and farm managers	82,708	(2.0)	76,454	(2.5)	1,827	(0.4)	4,427	(0.7)
	Farm laborers and foremen	81,255	(2.0)	35,398	(1.2)	10,764	(2.3)	35,093	(5.8)
	Service workers, except private household	458,867	(11.11)	262,819	(8.5)	113,336	(23.8)	82,712	(13.8)
	Private household workers	90,688	(2.2)	18,336	(9.0)	57,592	(12.1)	14,760	(2.5)
	The Black category includes Black Americans and all	cans and al	11 other ra	other races not separately classified, which in Texas	rately cla	assified,	which in	Texas	

comprises about one percent of the population ²Females only.

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C45 Texas, U. S. Government Printing Office, Washington, D. C. 1972.

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AUSTIN SMSA

OCCUPATION	ALL ETHNIC GROUPS	ANGLO	BLACK1	MEXICAN AMERICAN
TOTAL EMPLOYMENT	117,821 (100.0)	91,006 (100.0)	12,225 (100.0)	14,590 (100.0)
Professional, technical and kindred workers	25,781 (21.9)	23,054 (25.3)	1,131 (9.3)	1,596 (10.9)
Managers and administrators, except farm	11,516 (9.8)	10,387 (11.4)	352 (2.9)	777 (5.3)
Sales workers	8,903 (7.6)	7,923 (8.7)	232 (1.9)	748 (5.1)
Clerical and kindred workers	27,082 (23.0)	23,029 (25.3)	1,284 (10.5)	2,769 (19.0)
Craftsmen, foremen and kindred workers	12,720 (10.8)	9,717 (10.7)	1,017 (8.3)	1,986 (13.6)
2 Operatives, except transport	5,692 (4.8)	3,015 (3.3)	661 (5.4)	2,016 (13.8)
Transport equipment operatives	3,201 (2.7)	1,996 (2.2)	642 (5.3)	563 (3.9)
Laborers, except farm	4,323 (3.7)	1,962 (2.2)	1,023 (8.4)	1,338 (9.2)
Farmers and farm managers	500 (0.4)	472 (0.5)	7 (0.1)	21 (0.1)
Farm laborers and foremen	426 (0.4)	180 (0.2)	129 (1.0)	117 (0.8)
Service workers, except private household	15,182 (12.9)	8,758 (9.6)	4,034 (33.0)	2,390 (16.4)
Private household workers	2,495 (2.1)	513 (0.6)	1,713 (14.0)	269 (1.8)

The Black category includes Black Americans and all other races not separately classified, which in Texas comprises about one percent of the population

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C45 Texas, U. S. Government Printing Office, Washington, D. C. 1972.



OCCUPATIONAL EMPLOYMENT BY ETHNIC GROUP 1970

BEAUMONT - PORT ARTHUR - ORANGE SMSA

OCCUPATION	ALL ETHNIC GROUPS	ANGLO	BLACK1	MEXICAN AMERICAN
TOTAL EMPLOYMENT	114,276 (100.0)	88,393 (100.0)	21,597 (100.0)	4,286 (100.0)
Professional technical kindred	16,114 (14.1)	14,341 (16.2)	1,335 (6.2)	438 (10.2)
Managers and administrators, except farm	8,748 (7.7)	7,964 (9.0)	487 (2.3)	297 (6.9)
Sales workers	7,837 (6.9)	7,176 (8.1)	420 (1.9)	241 (5.6)
Clerical and kindred workers	16,474 (14.4)	14,469 (16.4)	1,427 (6.6)	578 (13.5)
S. Craftsmen, foremen, and kindred	21,972 (19.2)	18,983 (21.5)	2,054 (9.5)	935 (21.8)
Operatives, except transport	15,141 (13.3)	11,755 (13.3)	2,671 (12.4)	715 (16.7)
Transport equipment operatives	4,174 (3.7)	2,522 (2.9)	1,526 (7.1)	126 (2.9)
Laborer, except farm	7,348 (6.4)	3,432 (3.9)	3,631 (16.8)	294 (6.9)
Farmers and farm managers	347 (0.3)	311 (0.4)	30 (0.1)	6 (0.1)
Farm laborer and foremen	447 (0.4)	197 (0.2)	238 (1.1)	12 (0.3)
Service workers, except private household	13,048 (11.4)	7,034 (8.0)	5,441 (25.2)	573 (13.4)
Private household workers	2,626 (2.3)	218 (0.2)	2,337 (10.8)	71 (1.7)

¹The Black category includes Black Americans and all other races not separately classified, which in Texas comprises about one percent of the population.

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C45 Texas, U. S. Government Printing Office, Washington, D. C., 1972.



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DALLAS SMSA

OCCUPATION	TOTAL DALLAS SMSA	ANGLO	BLACK	MEXICAN AMERICAN
TOTAL	(100.0)	535,466 (100.0)	13,889 (100.0)	36,155 (100.0)
Professional technical kindred	102,672 (15.4)	93,151 (17.4)	6,098 (6.5)	3,423 (9.5)
Managers and administrators, except farm	63,352 (9.5)	59,763 (11.2)	1,902 (2.0)	1,687 (4.7)
Sales workers	60,224 (9.1)	56,212 (10.5)	2,032 (2.2)	1,980 (5.5)
Clerical and kindred workers	142,843 (21.5)	125,460 (23.4)	11,355 (12.1)	6,028 (16.7)
Craftsmen, foremen, and kindred	86,845 (13.1)	72,998 (13.6)	8,028 (8.6)	5,819 (16.1)
Operatives, except transport	72,417 (10.9)	48,183 (9.0)	16,059 (17.1)	8,175 (22.6)
Transport equipment operatives	25,157 (3.8)	17,162 (3.2)	6,649 (7.1)	1,346 (3.7)
Laborer, except farm	27,184 (4.1)	15,457 (2.9)	8,805 (9.4)	2,922 (8.1)
Farmers and farm managers	3,110 (0.5)	2,910 (0.5)	160 (0.2)	40 (0.1)
Farm laborer and foremen	3,06। (0.5)	1,605 (0.3)	1,015 (1.1)	441 (1.2)
Service workers, except private household	66,320 (10.0)	40,506 (7.6)	21,816 (23.2)	3,998 (11.11)
Private household workers	12,325 (1.9)	2,059 (0.4)	(9,970 (10.6)	296 (0.8)

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SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1) - C45 Texas, U. S. Government Printing Office, Washington, D. C. 1972. latis category also includes other races, which constitute approximately one percent of the population of Texas

FORT WORTH SMSA

OCCUPATION	ALL ETHNIC GROUPS	ANGLO	BLACK ¹	MEXICAN AMERICANS
TOTAL EMPLOYMENT	310,567 (100.0)	265,685 (100.0)	30,223 (100.0)	14,659 (100.0)
Professional, technical and kindred workers	49,284 (15.9)	45,905 (17.2)	1,882 (6.2)	1,497 (10.2)
Managers and administrators, except farm	26,056 (8.4)	25,142 (9.4)	460 (1.5)	454 (3.0)
Sales workers	24,959 (8.0)	23,772 (8.9)	600 (2.0)	587 (4.0)
Clerical and kindred workers	59,658 (19.2)	55,309 (20.8)	2,473 (8.2)	1,876 (12.8)
Craftsmen, foremen and kindred workers	47,072 (15.2)	41,471 (15.6)	2,665 (8.8)	2,936 (20.0)
2 Operatives, except transport	42,443 (13.7)	32,102 (12.0)	6,187 (20.5)	4,154 (28.3)
Transport equipment operatives	11,239 (3.6)	8,969 (3.4)	1,831 (6.1)	439 (3.0)
Laborers, except farm	12,194 (3.9)	8,173 (3.1)	2,988 (9.9)	1,033 (7.0)
Farmers and farm managers	1,032 (0.3)	994 (0.4)	32 (0.1)	(-) 9
Farm laborers and foremen	1,024 (0.3)	837 (0.3)	112 (0.4)	75 (0.5)
Service workers, except private household	31,314 (10.1)	21,920 (8.3)	7,853 (26.0)	1,54; (10.5)
Private household workers	4,292 (1.4)	1,091 (0.4)	3,140 (10.4)	61 (0.4)

The Black category includes Black Americans and all other races not separately classified, which in Texas comprises about one percent of the population.



²Females only.

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C45 Texas, U. S. Government Printing Office, Washington, D. C. 1972.

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GALVESTON-TEXAS CITY SMSA

OCCUPAT ION	ALL ETHNIC GROUPS	ANGLO	BLACK ¹	MEXICAN AMERICANS
TOTAL EMPLOYMENT	65,011 (100.0)	46,669 (100.0)	11,862 (100.0)	6,480 (100.0)
Professional, technical and kindred workers	11,276 (17.3)	9,591 (20.6)	993 (8.4)	692 (10.7)
Managers and administrators, except farm	4,793 (7.4)	4,249 (9.1)	188 (1.6)	356 (5.5)
Sales workers	4,067 (6.3)	3,437 (7.4)	262 (2.2)	368 (5.7)
Clerical and kindred workers	10,880 (16.7)	8,798 (18.9)	946 (8.0)	954 (14.7)
Craftsmen, foremen and kindred workers	11,129 (17.1)	9,093 (19.5)	(9.7) 006	1,136 (17.5)
& Operatives, except transport	6,744 (10.4)	4,622 (9.9)	1,114 (9.4)	1,008 (15.6)
Transport equipment operatives	2,039 (3.1)	1,097 (2.4)	711 (6.0)	231 (3.6)
Laborers, except farm	4,142 (6.3)	1,621 (3.5)	1,878 (15.8)	643 (9.9)
Farmers and farm managers	128 (0.2)	109 (0.2)	13 (0.1)	6 (0.1)
Farm laborers and foremen	198 (0.3)	54 (0.1)	95 (0.8)	49 (0.8)
Service workers, except private household	8,328 (12.8)	3,636 (7.8)	3,733 (31.5)	959 (14.8)
Private household workers	1,287 (2.0)	180 (0.4)	1,029 (8.7)	78 (1.2)

^lThe Black category includes Black **Ame**ricans and all other races not separately classified, which in Texas comprises about one percent of the population.

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C45 Texas, U. S. Government Printing Office, Washington, D. C., 1972.



HOUSTON SMSA

OCCUPATION	ALL ETHNIC	ANGLOS	BLACK	MEXICAN
	GROUPS			AMERICAN
TOTAL EMPLOYMENT	797,421 (100.0)	885,090 (100.0)	140,498 (100.0)	(0.00:) 883 (1/0.0)
Professional, technical and kindred workers	131,564 (16.5)	(3.60 (19.5)	10,868 (7.7)	6,836 (9.5)
Managers and administrators, except farm	70,054 (8.8)	63,278 (10.8)	3,228 (2.3)	3,548 (4.9)
Sales workers	66,608 (8.4)	58,746 (10.0)	3,356 (2.4)	4,506 (6.3)
6 Clerical and kindred workers	149,896 (18.8)	123,440 (21.1)	15,324 (10.9)	11,132 (15.5)
Craftsmen, foremen and kindred workers	120,839 (15.2)	94,551 (16.2)	13,616 (9.7)	12,672 (17. !)
Operatives, except transport	(0.01) 518,67	49,957 (8.5)	17,162 (12.2)	12,696 (17.7)
Transport equipment operatives	32,356 (4.1)	16,753 (2.9)	12,521 (8.9)	3,082 (4.3)
Laborers, except farm	40,350 (5.1)	16,701 (2.9)	17,328 (12.3)	6,321 (8.8)
Farmers and farm managers	2,936 (0.4)	2,493 (0.4)	284 (0.2)	159 (0.2)
Farm laborers and foremen	3,016 (0.4)	1,515 (0.3)	970 (0.7)	531 (0.7)
Service workers, except private household	83,359 (10.5)	(1.7) 008,14	31,931 (22.7)	9,628 (13.4)
Private household workers	16,628 (2.1)	1,996 (0.3)	13,910 (9.9)	722 (1.0)

The Black category includes Black Americans and all other race not separately classified, which in Texas comprises about one percent of the population.

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC (1)-C45 Texas, U. S. Government Printing Office, Washington, D. C. 1972.

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MARSHALL (Harrison County)

OCCUPATION	ALL ETHNIC GROUPS	ANGLO	ВГАСК	MEXICAN AMERICAN ²
TOTAL EMPLOYMENT	15,653 (100.0)	10,946 (100.0)	4,707 (100.0)	
Professional, technical and kindred	1,939 (12.4)	1,478 (13.5)	461 (9.8)	
Managers and administrators, except farm	1,289 (8.2)	(1.11) 712,1	72 (1.5)	
& Sales workers	995 (6.4)	942 (8.6)	53 (1.1)	
Clerical and kindred workers	2,185 (14.0)	1,990 (18.2)	195 (4.1)	
Craftsmen, foremen and kindred	2,341 (15.0)	1,901 (17.4)	440 (9.3)	
Operatives, except transport	2,557 (16.3)	1,522 (13.9)	1,035 (22.0)	
Transport equipment operatives	797 (5.1)	529 (4.8)	268 (5.7)	
Laborer, except farm	930 (5.9)	281 (2.6)	649 (13.8)	
Farmers and farm managers	(7.0) OII	83 (0.8)	21 (0.4)	
Farm laborers and foremen	(1.1)	(9.0) 99	102 (2.2)	
Service workers, except private household	1,639 (10.5)	830 (7.6)	809 (17.2)	
Private household workers	703 (4.5)	(6.0) 101	602 (12.8)	

The Black category includes Black Americans and all other races not separately classified, which in Texas comprises about one percent of the population 2There are fewer than 400 Mexican Americans in Harrison County. Under such circumstances, Mexican Americans are not separately listed.

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SAN ANTONIO SMSA

OCCUPATION	ALL ETHNIC GROUPS	ANGLO	BLACK		MEXICAN	_ ~
TOTAL EMPLOYMENT	276,349 (100.0)	143,260 (100.0)	18,482 (100.0)	-	1,4,307 (100.0)	100.0)
Professional, technical and kindred workers	38,630 (14.0)	28,812 (20.1)	1,772	(9.6)	8,046	(7.0)
Managers and administrators, except farm	23,923 (8.7)	17,816 (12.4)	485 (2.6)	5,622	(4.9)
Sales workers	24,055 (8.7)	16,251 (11.3)	430	(2.3)	7,374	(6.5)
Clerical and kindred workers	58,018 (21.0)	34,899 (24.4)	2,608	(14.1)	20,511	(17.9)
Craftsmen, foremen and kindred workers	39,917 (14.5)	17,952 (12.5)	1,787	(6.7)	20,178	(17.6)
Operatives, except transport	26,039 (9.4)	6,780 (4.7)	1,280	(6.9)	17,979	(15.7)
Transport equipment operatives	11,190 (4.1)	3,700 (2.6)) 601°1	(0.9	6,381	(5.6)
Laborers, except farm	13,295 (4.8)	3,032 (.2.1)	1,135	(6.1)	9,128	(8.0)
Farmers and farm managers	1,694 (0.6)	1,473 (1.0)) 19	0.3)	170	(0.1)
Farm laborers and foremen	1,303 (0.5)	534 (0.4)	85	(0.5)	684	(0.6)
Service workers, except private household	33,087 (12.0)	11,135 (7.8)	5,379	(29.1)	16,573	(14.5)
Private household workers	4,898 (1.8)	876 (6.6)	2,367	(12.8)	1.661	(1.4)

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The Black category includes Black Americans and all other races not separately classified, which in Texas comprises about one percent of the population

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C45 Texas, U. S. Government Printing Office, Washington, D. C. 1972.

TABLE B-10

TYLER SMSA

OCCUPATION	ALL ETHNIC GROUPS	ANGLO	BLACK ¹	AMERICAN
TOTAL EMPLOYMENT	38,367 (100.0)	29,29. 300.0)	8,495 (100.0)	572 (100.0)
Profess:onal technical kindred	4,818 (12.6)	4,098 (14.0)	688 (8.1)	32 (5.5)
Managers and administrators, except farm	3,695 (9.6)	3,540 (12.1)	124 (1.5)	31 (5.4)
Sales workers	3,126 (8.1)	3,019 (10.3)	87 (1.0)	20 (3.4)
Clerical and kindred workers	6,022 (15.7)	5,430 (18.6)	556 (6.5)	36 (6.2)
😞 Craftsmen, foremen, and kindred	5,368 (14.0)	4,481 (15.3)	751 (8.8)	136 (23.5)
Operatives, except transport	5,347 (13.9)	3,288 (11.2)	1,889 (22.2)	170 (29.4)
Transport equipment operatives	1,765 (4.6)	1,356 (4.6)	397 (4.7)	12 (2.1)
Laborers, except farm	1,805 (4.7)	991 (3.4)	788 (9.3)	26 (4.5)
Farmers and farm managers	422 (1.1)	352 (1.2)	63 (0.7)	7 (1.7)
Farm laborers and foremen	689 (1.8)	213 (0.7)	437 (5.1)	39 (6.7)
Service workers, except private household	4,092 (10.7)	2,340 (8.0)	1,701 (20.0)	51 (8.8)
Private household workers	1,218 (3.2)	185 (0.6)	1,014 (11.9)	19 (3.3)

If he Black category includes Black Americans and all other races not separately classified, which in Texas comprises about one percent of the population.

SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics.

II-G JJGVI

OCCUPATIONAL EMPLOYMENT BY ETHNIC GROUP 1970

WACO SMSA

OCCUPATION	ALL ETHNIC GROUPS	ANGLO	BLACK ¹	MEXICAN
TOTAL EMPLOYMENT	56,559 (100.0)	45,215 (100.0)	8.176 (100.0)	3 168 (100 0)
Professional, technical and kindred workers	7,808 (13.8)	6,719 (14.8)	832 (10.2)	257 (8 1)
Managers and administrators, except farm	5,276 (9.3)	5,198 (11.5)		
Sales workers	4,433 (7.8)	4,173 (9.2)		, _
Clerical and kindred workers	9,872 (17.4)	8,873 (19.6)	581 (7.1)	, [
Craftsmen, foremen and kindred workers	7,204 (12.7)	6,101 (13.5)	638 (7.8)	465 (14.7)
Operatives, except transport	7,133 (12.6)	5,287 (11.7)	1,062 (13.0)	<i>-</i>
Transport equipment operatives	2,105 (3.7)	1,659 (3.7)	366 (4.5)	80 (2.5)
Laborers, except farm	2,219 (3.9)	1,315 (2.9)	595 (7.3)	<i>,</i> _
Farmers and farm managers	961 (1.7)	943 (2.0)	4 (-)	, _
Farm laborers and foremen	704 (1.2)	499 (1.1)	127 (1.6)	<i>-</i>
Service workers, except private household	7,229 (12.8)	4,457 (9.9)	2,334 (28.5)	·
Private household workers	1,615 (2.9)	333 (0.7)	1,241 (15.2)	<i>-</i>
				•

^lThe Black category includes Black Americans and all other races not separately classified, which in Texas comprises about one percent of the population.



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SOURCE: U. S. Bureau of the Census, Census of the Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C45 Texas, U. S. Government Printing Office, Washington, D. C., 1972.

ERRATA

MANPOWER AND VOCATIONAL EDUCATION IN TEXAS by Terry W. Mullins and Roberto S. Guerra

Page 40, last sentence reading:

Nearly half are Black (47 percent), with the remainder being Nexican American (39 percent) or Anglo (38 percent).

Should read:

Of those students enrolled in vocational programs in the State (grades 9-12), approximately 65 percent are Anglo, 18 percent are Mexican American, and 17 percent are Black; however, 39 percent of all Anglo students, 39 percent of all Mexican American students, and 47 percent of all Black students in the total enrollment of grades 9-12 are enrolled in vocational education programs.

